

REMARKS

This amendment is submitted after final rejection pursuant to 37 CFR 1.116 because Applicants believe that the claims now presented are in condition for allowance. In any event entry of this amendment will place the application in better form for appeal. Applicants have raised no new issues and added no new matter. Finally the points herein that Applicants discuss are in direct response to the Examiner's arguments supporting the final rejection and Applicants could not have made this presentation at an earlier date.

On 25 June 2009 Applicants' undersigned representative conducted a telephone interview with Examiner Fisher and her Primary Examiner, Examiner Haghighatian. Applicants wish to thank both Examiners for holding the interview and for their analysis of the present invention in the context of the cited prior art, in particular, BOSCH et al. During the telephone interview the undersigned presented arguments to distinguish the present invention over the disclosure in BOSCH et al. The undersigned discussed especially the data presented in BOSCH et al in Figure 2, Table 2, and Figure 4 as well as the data presented in the present application, in particular, in Figures 1 and 2. The undersigned emphasized that there is no disclosure in BOSCH et al of an insect attracting composition that contains lactic acid, caproic acid (a

C₆ carboxylic acid) and ammonia at the same time though there is a disclosure of an insect attracting composition containing lactic acid, valeric acid (a C₅ carboxylic acid) and ammonia. See Figure 4. The undersigned further indicated that the data in Figure 2 of BOSCH et al would lead those skilled in the art away from the present invention because those data show a trend that with increasing carbon count of the carboxylic acid above C₅, the rate of attractiveness of such compositions in combination with lactic acid falls off. There is a steady decline in the rate of attractiveness as the carbon count of the carboxylic acid component falls off from C₅ to C₉. Therefore one skilled in the art would hardly be motivated to increase the carbon count of the carboxylic acid from 5 to 6 with the expectation of obtaining a better insect attractant.

The Examiners did agree that the data in BOSCH et al showed a trend that with increasing carbon count of the carboxylic acid above 5 in compositions with lactic acid and a carboxylic acid, the higher the carbon count of the carboxylic acid, the lower the level of insect attractiveness of the composition. The Examiners refused to agree, however, that the data in Figure 2 of BOSCH et al were sufficient to establish a clear teaching away from using caproic acid as the carboxylic acid in combination with lactic acid and ammonia according to the present invention.

Next the undersigned referred to Table 2 of BOSCH et al and pointed out that the best insect attractant compositions within that table contained either lactic acid, propanoic acid and a third carboxylic acid containing 5 to 8 carbons or lactic acid, valeric acid, and either a C₁ to C₃ carboxylic acid or a C₁₈ carboxylic acid.

The undersigned pointed out the fact that the latter series of compositions, showed good results when the carboxylic acid has a C₁ to C₃ carbon count or a C₁₈ carbon count, but not for the carboxylic acids with carbon counts in between 3 and 18, shows a level of uncertainty and unpredictability in this art of insect attractants. In any event nothing in the data in table 2 of BOSCH et al points to a composition containing lactic acid, caproic acid and ammonia as an exceptional insect attractant. The uncertainty and unpredictability in this particular art as demonstrated by the results presented in BOSCH et al, provides a strong basis for Applicants' contention that the present invention as now claimed is unobvious over the prior art, in particular BOSCH et al, notwithstanding any structural similarity between the caproic acid in the Applicants' compositions and the carboxylic acids in the compositions disclosed in BOSCH et al, such as valeric acid.. See In re May and Eddy, 197 USPQ 601 (CCPA 1978).

The Examiners indicated that they did agree that the fact that the combination of lactic acid, valeric acid and either a C₁ to C₃ carboxylic acid or a C₁₈ carboxylic acid, performed best as insect attractants, but not so for the carboxylic acids with carbon counts between 3 and 18, provided evidence of uncertainty and unpredictability in the art. Thus the results that one would obtain by applying the Applicants' claimed combination of ingredients might not be so predictable.

The undersigned then referred to Figure 4 of BOSCH et al and the comparison of several compositions containing lactic acid per se, ammonia per se, and lactic acid, ammonia and various carboxylic acids, including a C₃ carboxylic acid, a C₅ carboxylic acid and a combination of a C₃ and a C₅ carboxylic acid. The attractiveness was compared to the attractiveness of an extract from human skin. None of these prior art combinations of ingredients approached the level of attractiveness provided by human skin extract.

Next the undersigned discussed the data in Figures 1 and 2 of the present application and correlated these data with the data in Figure 4 of BOSCH et al. The undersigned noted that in Figure 4 of BOSCH et al, the extract from human skin was a significantly superior insect attractant over all of the tested

combinations of lactic acid, ammonia and carboxylic acid of a varying carbon count of 3, 5 or a combination those carboxylic acids. It was emphasized that the presently claimed compositions of lactic acid, ammonia and C₆ carboxylic acid were never tested in BOSCH et al. However, when such a composition was tested according to Figure 1 of the present invention where lactic acid (LA), caproic acid (CA) and ammonia (AM) were tested together, the result was substantially as good as it was when a human hand was compared. The data in Figure 2 showed that human volunteers who exposed their hands to the mosquitoes presented about the same level of insect attractiveness as the presently claimed and tested composition containing lactic acid, caproic acid and ammonia. The Examiners found the data in Figures 1 and 2 of the present application as read against the data in Figure 4 of BOSCH et al might be evidence of a surprising and unobvious result.

The Examiners did not promise allowance of any claim based on these data, but at least indicated that the data in Figures 1 and 2 of the present invention, as read against the data in BOSCH et al, might provide evidence of the patentability of a method of use claim. The method of use claim would have to mention in the preamble that the level of attractiveness of the applied compositions containing lactic acid, caproic acid and ammonia would have to be substantially the same as that of the human body. Example 2 provides the antecedent basis for such a claim..

Applicants have accordingly canceled claims 1 through 28 and are submitting new claims 29 through 31, which are consistent with the Examiners' suggestions made during the telephone interview. The new claims are limited to a method of attracting blood-sucking arthropods and/or fruit flies at a level of attractiveness equivalent to a level of attractiveness of a human body comprising the step of exposing the environment with an evaporated composition of

- (a) lactic acid or an acceptable salt thereof;
- (b) caproic acid or an acceptable salt thereof; and
- (c) ammonia,

in a respective molar ratio of 1: 0.5 - 50: 0.05 to 5 which composition is effective to attract blood-sucking arthropods and/or fruit flies.

Applicants believe that claims 29 through 31 are patentably distinguishable over the BOSCH et al reference, taken alone, or in combination with HEATH et al and BERNIER et al. None of the three references, taken alone or in combination, suggests that the present combination of lactic acid, caproic acid and ammonia, will attract blood-sucking insects at the same level of attractiveness as that of the human body.

Applicants believe that all claims now presented are in condition for allowance and a response to that effect is earnestly solicited.

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Enclosure:
None.